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Science and Technology for Tomorrow's Air and Space Force



Success Story

CAI PHASE 2 TEAM EARNS DEFENSE MANTECH ACHIEVEMENT AWARD FOR 2002



The Composites Affordability Initiative (CAI)-developed suite of tools and technologies are reaping benefits across the industry. The DoD documented more than \$5 million per aircraft in cost avoidance for the F-35 as a direct result of CAI's efforts. Thus far, CAI Phase 2 tools and technologies benefited other military aircraft, such as the unmanned combat air vehicle, the V-22, F-16, F-18, F-22, RAH-66, and the UCAV, along with engines such as the F110-132, GE90-115, and CF34.

The CAI cost analysis tool, an industry standard, resulted in more accurate affordability trades in one-tenth the time. A single application of a bonded joint analysis tool resulted in a more than \$2 million cost avoidance for the Navy's F-18 Hornet program.



Air Force Research Laboratory
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Materials and Manufacturing
Awards and Recognition

Accomplishment

A team of engineers representing the best and brightest from the Air Force, Navy, and aerospace industry, known as the CAI Phase 2 Team, recently won the prestigious Defense Manufacturing Technology (ManTech) Achievement Award for a variety of successes. Two that stood out were the \$200 million in cost avoidance for the initial 2,000 F-35s produced and the more than \$2 million in savings in the Navy's F/A-18 Hornet program.

Background

The CAI Phase 2 Team includes more than a dozen organizations with over 50 key players nominated for the award. Primary team members include the Air Force Materials and Manufacturing and Air Vehicles Directorates, the Office of Naval Research ManTech Detachment, the Joint Strike Fighter Program Office, Lockheed Martin, Boeing, Northrop Grumman, and Anteon Corporation. Representing Air Force ManTech at the ceremony were Drs. John Russell and Frances Abrams; Mr. Dennis Hager, Deputy Chief of the ManTech Division; and Mr. Paul Hauwiller, Anteon Corporation.

The Office of the Deputy Under Secretary of Defense for Science and Technology and the Joint Defense Manufacturing Technology Panel sponsor the award. Together, they recognize and honor those individuals or groups most responsible for outstanding technical accomplishments in achieving the vision of the Department of Defense's ManTech program. That vision is to "Realize a responsive, world-class manufacturing capability to affordably meet the warfighter's needs throughout the defense system life cycle."

CAI Phase 2 was a 54-month technology maturation effort funded by a 50/50 cost-share arrangement with industry. The CAI Team did not focus on a single technology, but focused on elevating the state-of-the-art in design and manufacturing across the entire aerospace industrial base for composite structures.

Unprecedented cooperation and exchange of pre-competitive data throughout the aerospace industry has had a tremendous impact on accelerating the advancement of technology across the industrial base. The collaborative nature eliminated the historical difficulties encountered in transferring technology to other contractors.

Additional information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (03-ML-15)